Arjuna JEE 2026

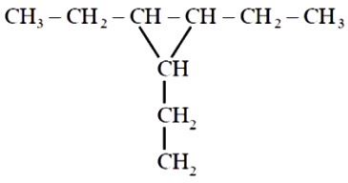
Organic Chemistry

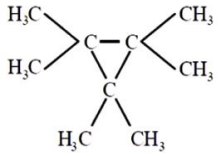
Some Basic Principles and Techniques (GOC)

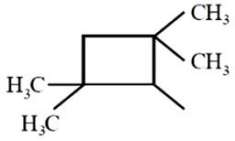
DPP: 1

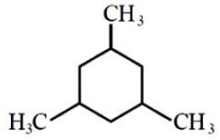
Total Duration-20 Mins.

Q1 An organic compound has molecular formula C_9H_{18}. Its all carbon atoms are sp^3 hybridised and its all hydrogen atoms are identical. Its structural formula can be

(A) 

(B) 

(C) 

(D) 

Q2 The inductive effect of the groups: $-NH_3^{\oplus}$; $-D$; $-CO_2^{\ominus}$; $-COOH$ are respectively

(A) $-I, +I, +I, -I$

(B) $-I, -I, -I, +I$

(C) + I, No effect, $-I, -I$

(D) $+I, -I, -I, -I$

Q3 Which of the following belongs to + I group?

(A) $-OMe$

(B) $-\overset{+}{N}H_3$

(C)

(D) $-OH$

Q4 Choose the correct statement

(A) I effect operates in both σ and π bonds

(B) I effect creates net charge in molecule

(C) I effect transfers electron from one carbon to another

(D) I effect creates partial charges and it is distance dependent

Q5 Arrange the following groups in the order of decreasing $(-I)$ effect.

(A) $CN > F > Br > Cl > COOH > I > H$

(B) $COOH > CN > F > Br > Cl > I > H$

(C) $H > COOH > CN > I > Cl > F > Br$

(D) $CN > COOH > F > Cl > Br > I > H$

Q6 The + I.E. (inductive effect) is shown by:

(A) $-CH_3$

(B) $-OH$

(C) $-F$

(D) $-C_6H_5$

Q7 The -I effect is shown by:

(A) $-COOH$

(B) $-CH_3$

(C) $-CH_2 \cdot CH_3$

(D) $-CHR_2$

Q8 The increasing order of +ve I-effect shown by H, CH_3, C_2H_5 and C_3H_7 is:

(A) $H < CH_3 < C_2H_5 < C_3H_7$

(B) $H > CH_3 > C_2H_5 > C_3H_7$

(C) $H < C_2H_5 < CH_3 < C_3H_7$

(D) None of the above

Q9 Which order is correct regarding the $-I$ effect of the substituents?

(A) $-NR_2 < -OR < -F$

(B) $-NR_2 > -OR < -F$

(C) $NR_2 > -F > -OR$

(D) $-NR_2 > -OR > -F$

Q10 Inductive effect refers to
(A) electron displacement along a carbon chain
(B) Complete transfer of one of the shared pair of electrons to one of the atoms joined by a double bond
(C) Complete transfer of electron with the help of conjugation
(D) None of the above

Master NCERT with PW Books APP

Answer Key

Q1	(B)	Q6	(A)
Q2	(A)	Q7	(A)
Q3	(C)	Q8	(A)
Q4	(D)	Q9	(A)
Q5	(D)	Q10	(A)

Master NCERT with PW Books APP